

ABSTRACT

A data storage device for storing digital information in a readable form is described made up of one or more memory elements, each memory element comprising a planar magnetic conduit capable of sustaining and propagating a magnetic domain wall formed into a continuous propagation track. Each continuous track is provided with at least one and preferably a large number of inversion nodes whereat the magnetization direction of a domain wall propagating along the conduit under action of a suitable applied field, such as a rotating magnetic field, is changed.